

IN THE CLAIMS:

Cancel claims 1 to 17.

Add the following claims:

18. (new) A device for actuating charge-cycling valves (V) in reciprocating internal combustion engines, comprising a housing (G); a cam (N) mounted in said housing (G) in a revolute joint (ng) for rotation, rotational movement of said cam being derived from a crankshaft; an intermediate member (Z) activated by cam (N) through a first cam joint (zn); and a power take-off member (A) for movement to a valve (V) and connected to act with said intermediate member (Z), and at least one other cam joint (za) within an active connection from said first cam joint (zn) to said power take-off member (A); said other cam joint (za) being formed by a cam (Kz or Ka, respectively) on one of the two gear mechanism members (Z, A) forming said cam joint (za), said cam (Kz or Ka) having a shape with at least one point of inflection (W) in a contact region wherein said valve has a lift greater than zero.

19. (new) A device as defined in claim 18, wherein movement transferred to the valve (V) can be changed by modifying the position and the orientation of at least one gear mechanism member or its joint positions to the housing (G).

20. (new) A device as defined in claim 18, wherein said cam joint (za) at one of said two gear mechanism members (Z, A) forming the same is formed by a cam (Kz or Ka, respectively) having a shape with a point of inflection (W) precisely in a contact region wherein said valve has a valve lift greater than zero.

21. (new) A device as defined in claim 18, wherein said point of inflection (W) is disposed essentially in a region of a starting and ending valve lift.

22. (new) A device as defined in claim 18, wherein said point of inflection (W) is disposed in a region of said cam (Kz or Ka, respectively) describing maximum valve lift.

23. (new) A device as defined in claim 18, wherein said cam joint (za) is formed on one of said two gear mechanism members (Z, A) forming the same, by a cam (Ka or Kz, respectively) having a shape formed by an arc or a circle.

24. (new) A device as defined in claim 18, wherein said cam joint (za) is disposed between said intermediate member (Z) and said power take-off member (A).

25. (new) A device as defined in claim 18, wherein said cam joint (za) is disposed between said intermediate member (Z) and said housing (G).

26. (new) A device as defined in claim 18, wherein said cam joint (za) is disposed on a transfer member located between said intermediate member (Z) and said power take-off member (A).

27. (new) A device for actuating charge-cycling valves (V) in reciprocating combustion engines comprising a housing (G); a cam (N) mounted in said housing (G) in a revolute joint (ng) for rotation, said cam being derived from a crankshaft; an intermediate member (Z) activated by cam (N) through a first cam joint (zn); and a power take-off member (A) transferring movement to the valve (v), and connected to act with said intermediate member (Z), and at least one further cam joint (za) within an active connection from said first cam joint (zn) to the power take-off member (A), said further cam joint (za) being at one of the two gear mechanism members (Z, A), forming said cam joint (za), by a cam (Kz or Ka), having a shape in a contact

region with a transition from said region wherein no valve lift is produced and into a region wherein a valve lift is produced and is formed by a segment and an evolvent section.

28. (new) A device for actuating charge-cycling valves (V) in reciprocating internal combustion engines, comprising a housing (G); a cam (N) mounted in said housing (G) in a revolute joint (ng) for rotation, rotational movement of said cam being derived from a crankshaft; an intermediate member (Z) activated by said cam (N) through a first cam joint (zn); and a power take-off member (A) transferring movement to the valve (V), and connected to act with said intermediate member (Z), and at least one other cam joint (za) within the active connection from said first cam joint (zn) to said power take-off member (A), whereby said other cam (za) is formed by a cam (Kz or Ka, respectively) on one of said two members (Z, A) forming said cam joint (za), said cam having at least one point of inflection (W) in a contact region wherein a valve lift is produced, said point of inflection (W) being disposed in a region of the cam (Kz or Ka, respectively) describing maximum valve lift, said point of inflection (W) being disposed so a surface normal in a contact point at where maximum valve lift is achieved and substantially equal to a surface normal in said contact point when highest valve acceleration occurs.

29. (new) A device as defined in claim 28, wherein movement transferred to valve (V) can be changed by modifying a position and orientation of at least one of said two members (Z, A) or its joint positions to said housing (G).

30. (new) A device as defined in claim 28, wherein in said cam joint (za) at one of said two members comprising two gear mechanism members (Z, A) is formed by a cam (Kz or Ka, respectively), with a shape having a point of inflection (W)

precisely in a contact region wherein the valve has a valve lift greater than zero.

31. (new) A device as defined in claim 28, wherein said cam joint (za) is formed on the other of said two members comprising two gear mechanism members (Z, A) formed by a cam (Ka or Kz, respectively) with a shape formed by an arc or a circle.

32. (new) A device as defined in claim 28, wherein said cam joint (za) is disposed between said intermediate member (Z) and said power take-off member (A).

33. (new) A device as defined in claim 28, wherein said cam joint (za) is disposed between said intermediate member (Z) and said housing (G).

34. (new) A device as defined in claim 28, wherein said cam joint (za) is disposed on a transfer member located between said intermediate member (Z) and said power take-off member (A).